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Title. A partial answer to Popov's Conjecture about equidimensional representations.

Abstract. In 1976 V.L. Popov conjectured that if a complex connected reductive algebraic group G acts linearly on \mathbb{C}^n such that all the fibers of the quotient morphism $\mathbb{C}^n \to \mathbb{C}^n//G$ are of the same dimension then $\mathbb{C}^n//G$ is smooth. We will prove that the singular locus of $\mathbb{C}^n//G$ has codimension at least 3.

This result is deduced from a result about semicontinuity of the order of the local fundamental group of a normal complex space which is dominated by a smooth complex space. We will also prove a global analogue of D. Mumford's result about the local fundamental group of a normal compex surface.